

Title (en)  
Thermal barrier coating system and method for coating a component

Title (de)  
Wärmesperrenbeschichtungssystem und Verfahren zur Beschichtung eines Bauteils

Title (fr)  
Système de revêtement de barrière thermique et procédé pour le revêtement d'un composant

Publication  
**EP 1939316 A1 20080702 (EN)**

Application  
**EP 07122214 A 20071204**

Priority  
US 61298706 A 20061219

Abstract (en)  
A thermal barrier coating system (12) for using with a component (10) is provided. The thermal barrier coating system (12) includes a roughened high-velocity oxy-fuel (HVOF) layer applied to an outer surface of the component. The thermal barrier coating system (12) further includes a ceramic coating (18) applied to the roughened HVOF layer, the ceramic coating including a plurality of dense vertically cracked (DVC) ceramic layers.

IPC 8 full level  
**C23C 4/08** (2006.01); **C23C 4/02** (2006.01); **C23C 4/10** (2006.01); **C23C 4/12** (2006.01); **C23C 4/18** (2006.01); **C23C 28/00** (2006.01)

CPC (source: EP US)  
**C23C 4/02** (2013.01 - EP US); **C23C 4/073** (2016.01 - EP US); **C23C 4/10** (2013.01 - EP US); **C23C 4/129** (2016.01 - EP US);  
**C23C 28/321** (2013.01 - EP US); **C23C 28/3215** (2013.01 - EP US); **C23C 28/345** (2013.01 - EP US); **C23C 28/3455** (2013.01 - EP US);  
**Y02T 50/60** (2013.01 - US); **Y10T 428/12535** (2015.01 - EP US)

Citation (search report)  
• [PX] EP 1813692 A2 20070801 - GEN ELECTRIC [US]  
• [XJ] US 5817372 A 19981006 - ZHENG XIAOCI MAGGIE [US]  
• [A] US 5830586 A 19981103 - GRAY DENNIS MICHAEL [US], et al  
• [A] US 2004256504 A1 20041223 - SEGREST JANNA LANNELL [US], et al  
• [A] US 5380564 A 19950110 - VANKUIKEN JR LEWIS L [US], et al

Cited by  
EP2309017A1; CN105658836A; EP2322686A3; EP3733923A1; CN103890220A; EP3461925A1; WO2011042500A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK RS

DOCDB simple family (publication)  
**EP 1939316 A1 20080702**; CN 101204863 A 20080625; JP 2008163459 A 20080717; US 2008145694 A1 20080619

DOCDB simple family (application)  
**EP 07122214 A 20071204**; CN 200710160307 A 20071219; JP 2007320266 A 20071212; US 61298706 A 20061219